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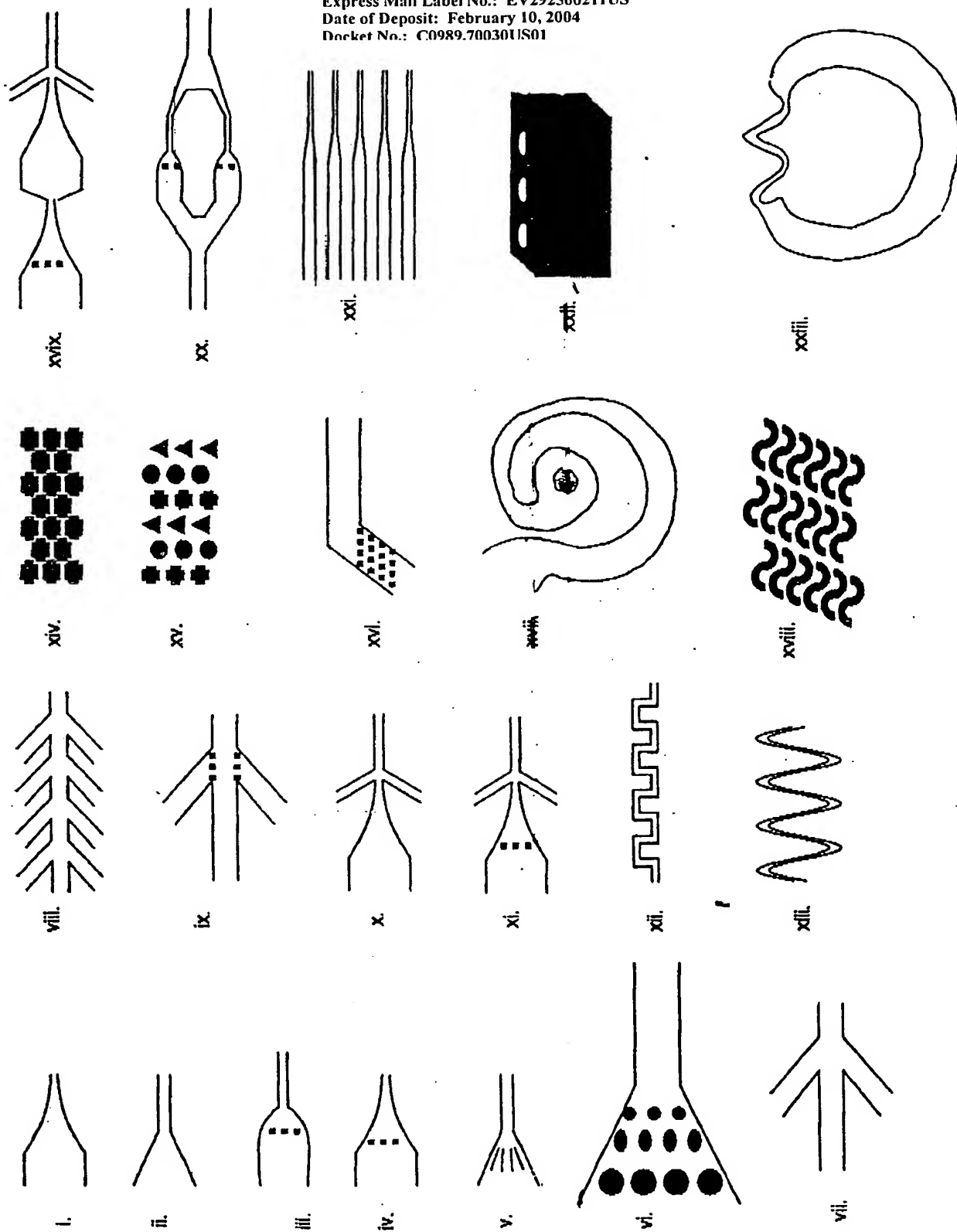


FIG. 1

10066-018

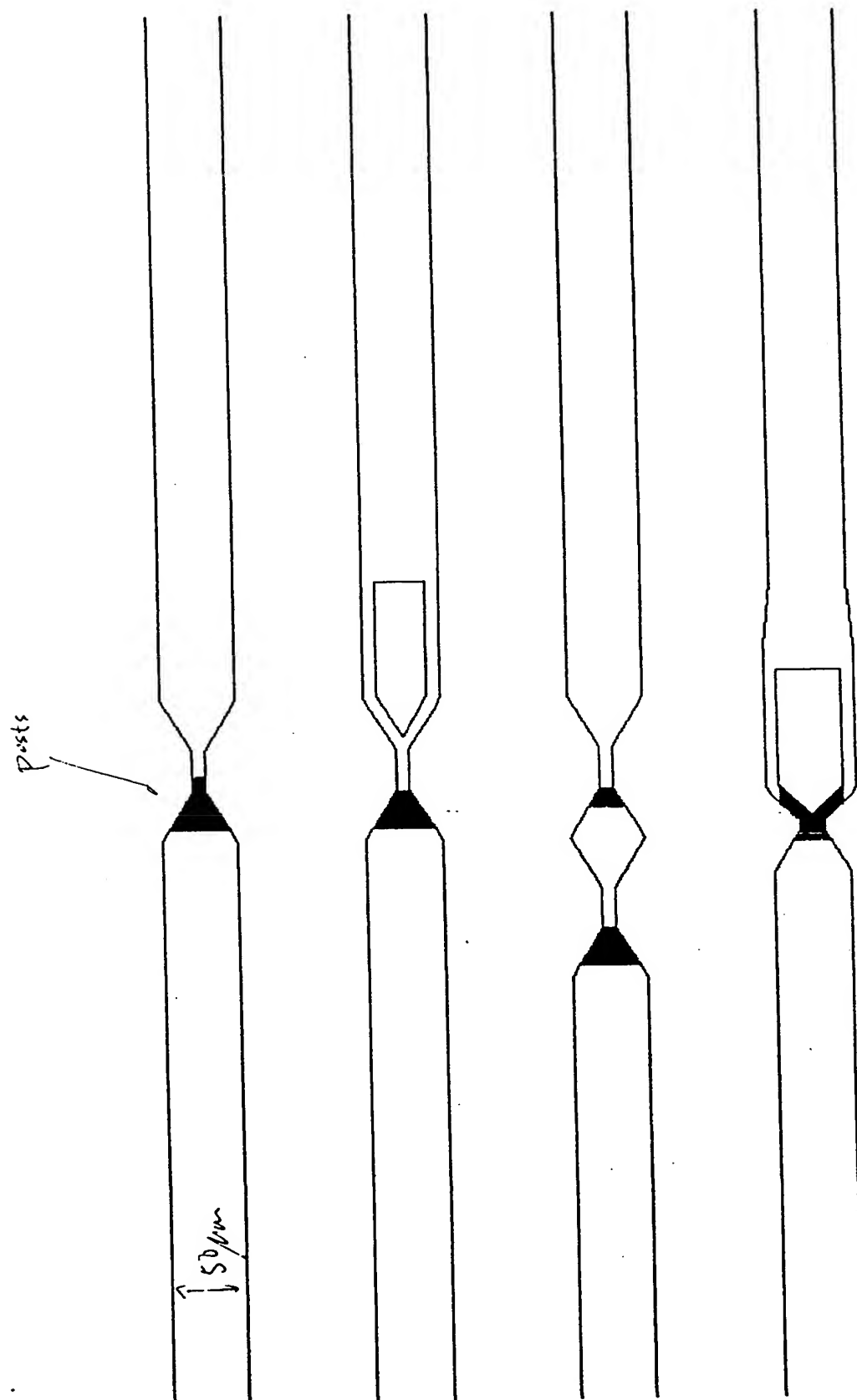


FIG. 2 (a)

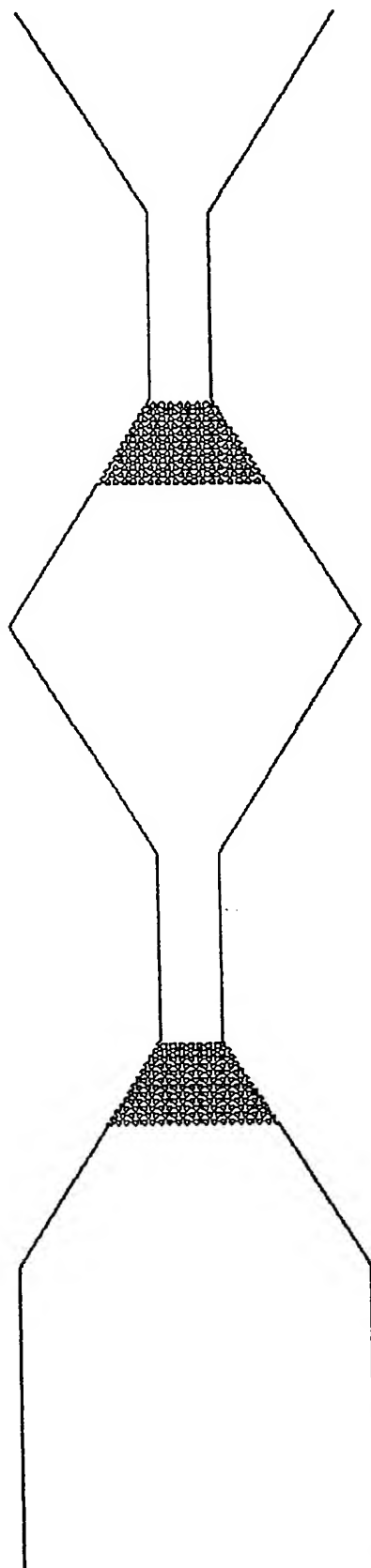


FIG. 2 (b)

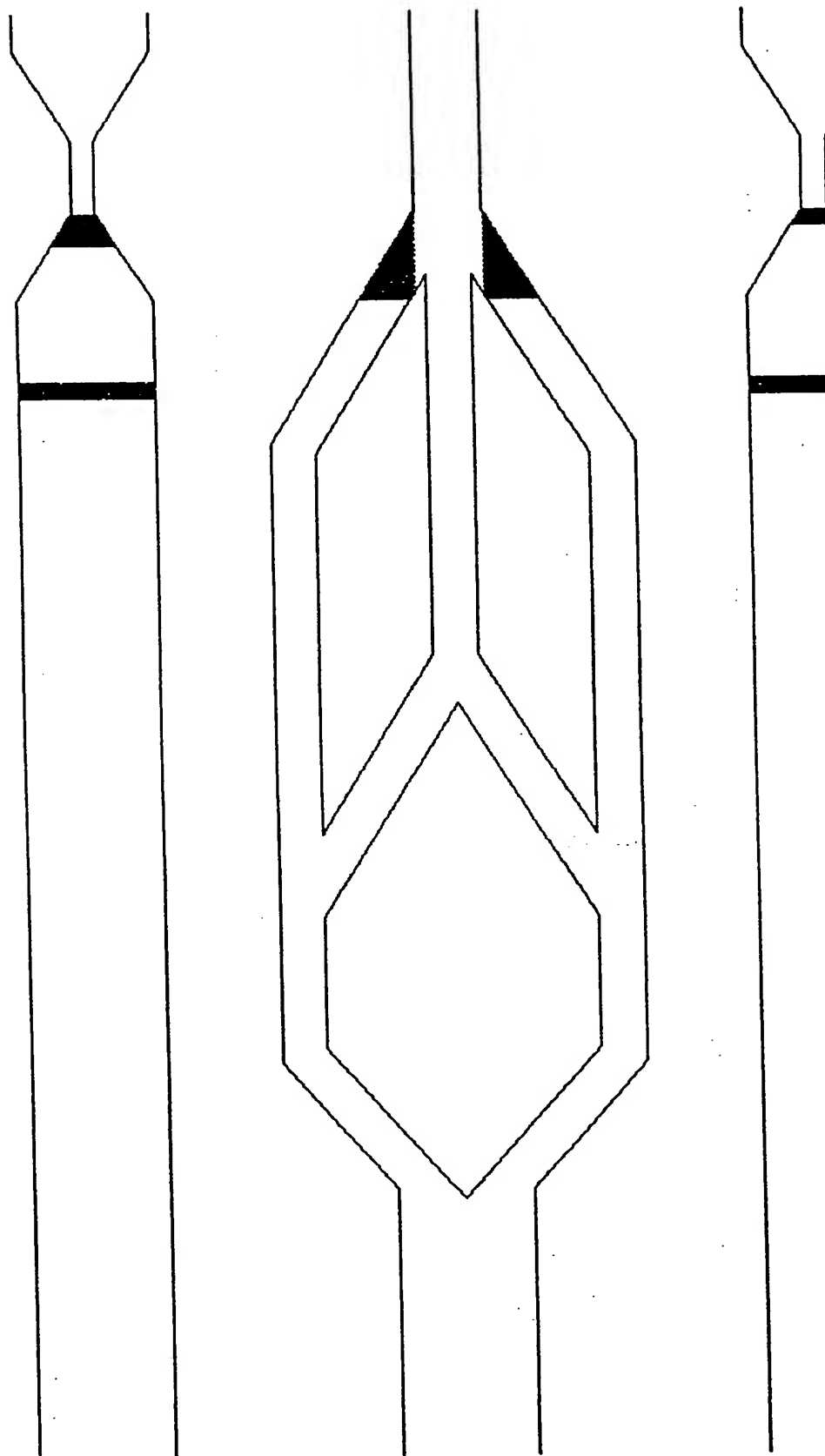


FIG. 2 (c)

METHODS AND APPARATUSES FOR
STRETCHING POLYMERS
Express Mail Label No.: EV292560211US
Date of Deposit: February 10, 2004
Docket No.: C0989.70030US01

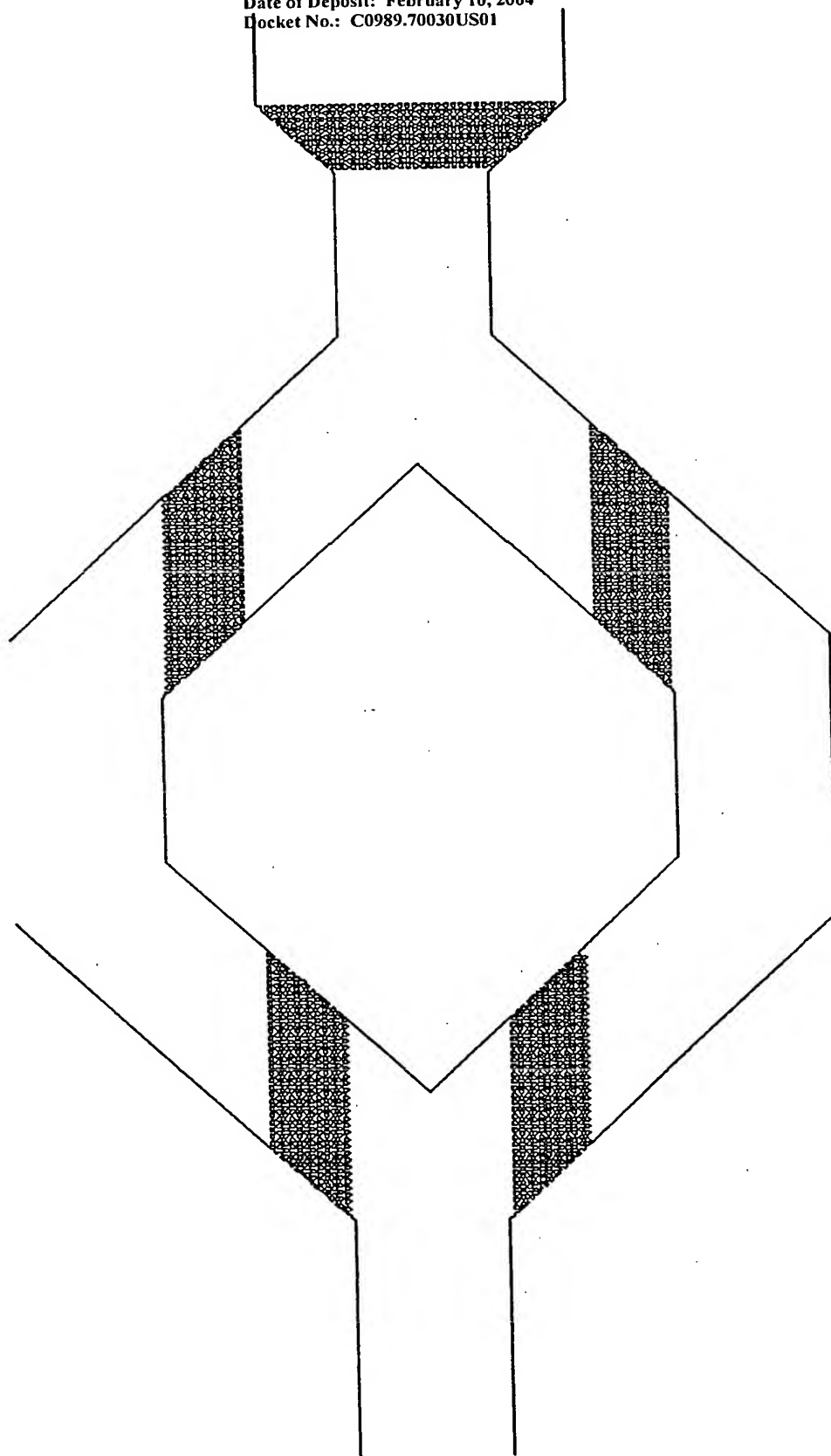


FIG. 2 (d)

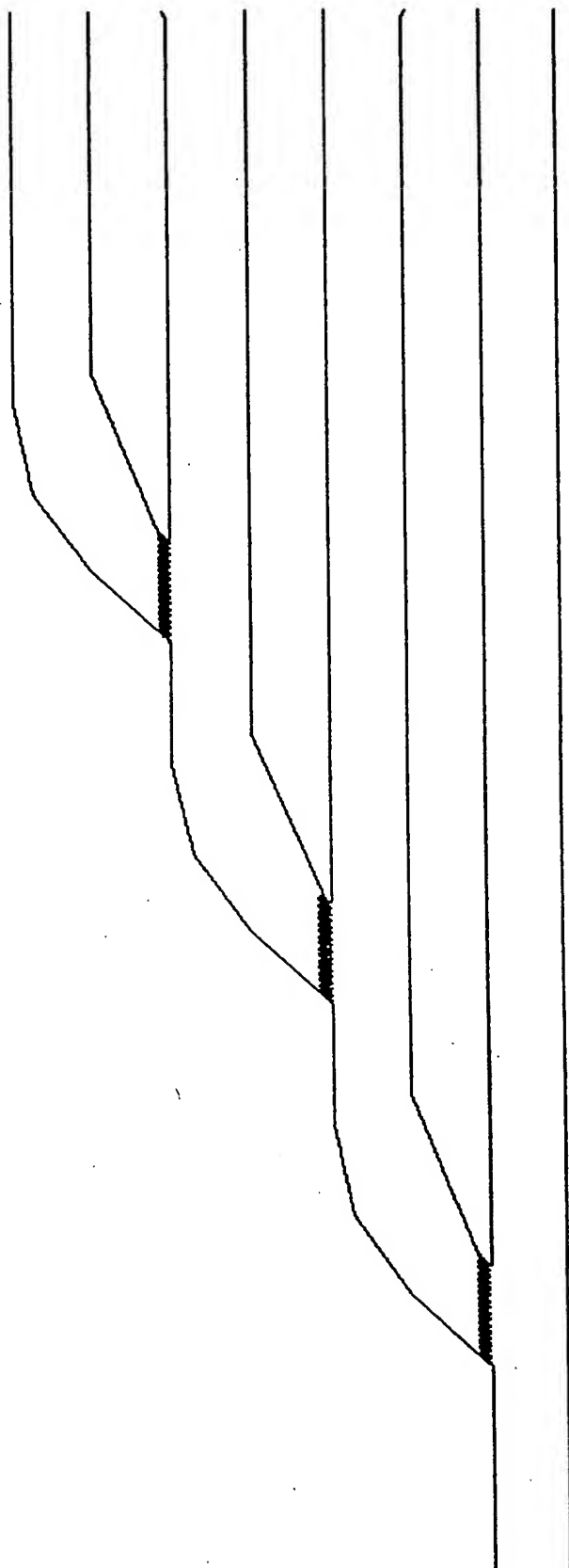


FIG. 2 (e)

METHODS AND APPARATUSES FOR
STRETCHING POLYMERS
Express Mail Label No.: EV292560211US
Date of Deposit: February 10, 2004
Docket No.: C0989.70030US01

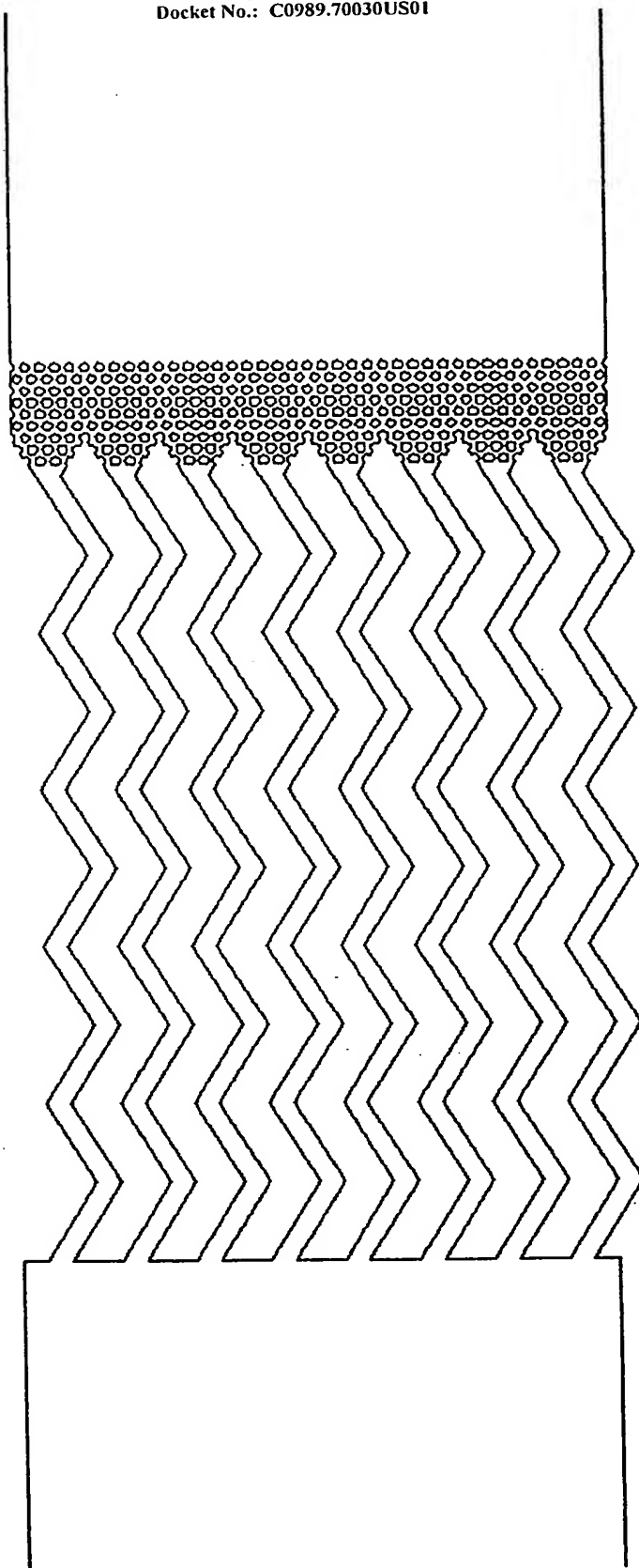


FIG. 2 (f)

METHODS AND APPARATUSES FOR
STRETCHING POLYMERS
Express Mail Label No.: EV292560211US
Date of Deposit: February 10, 2004
Docket No.: C0989.70030US01

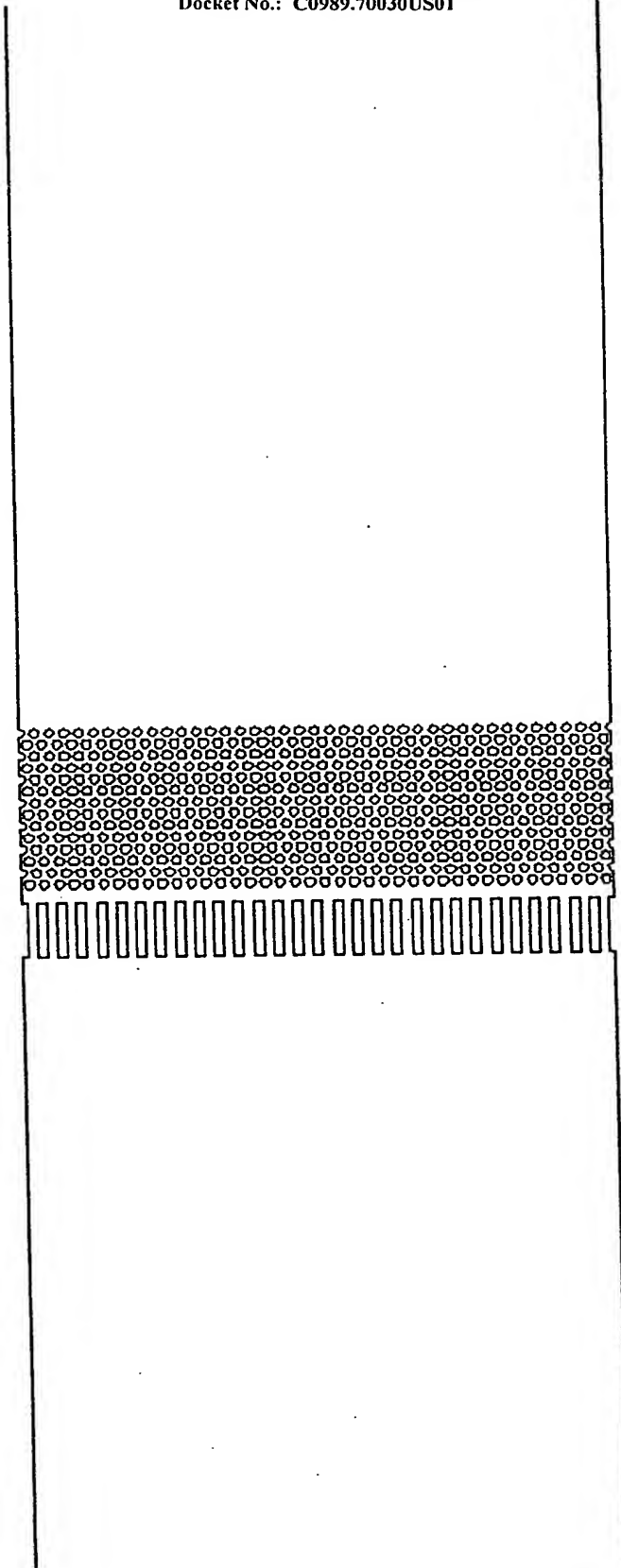


FIG. 2 (g)

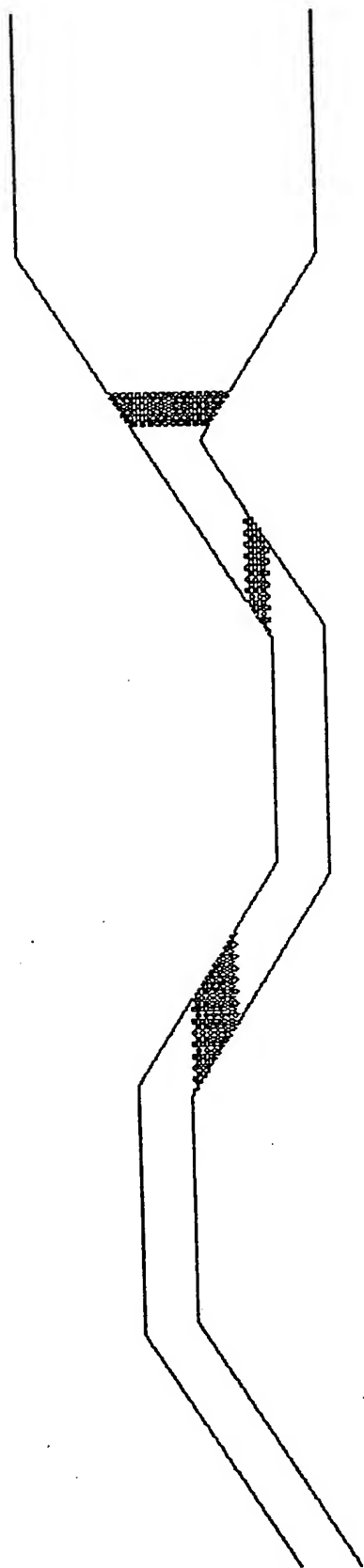


FIG. 2 (h)

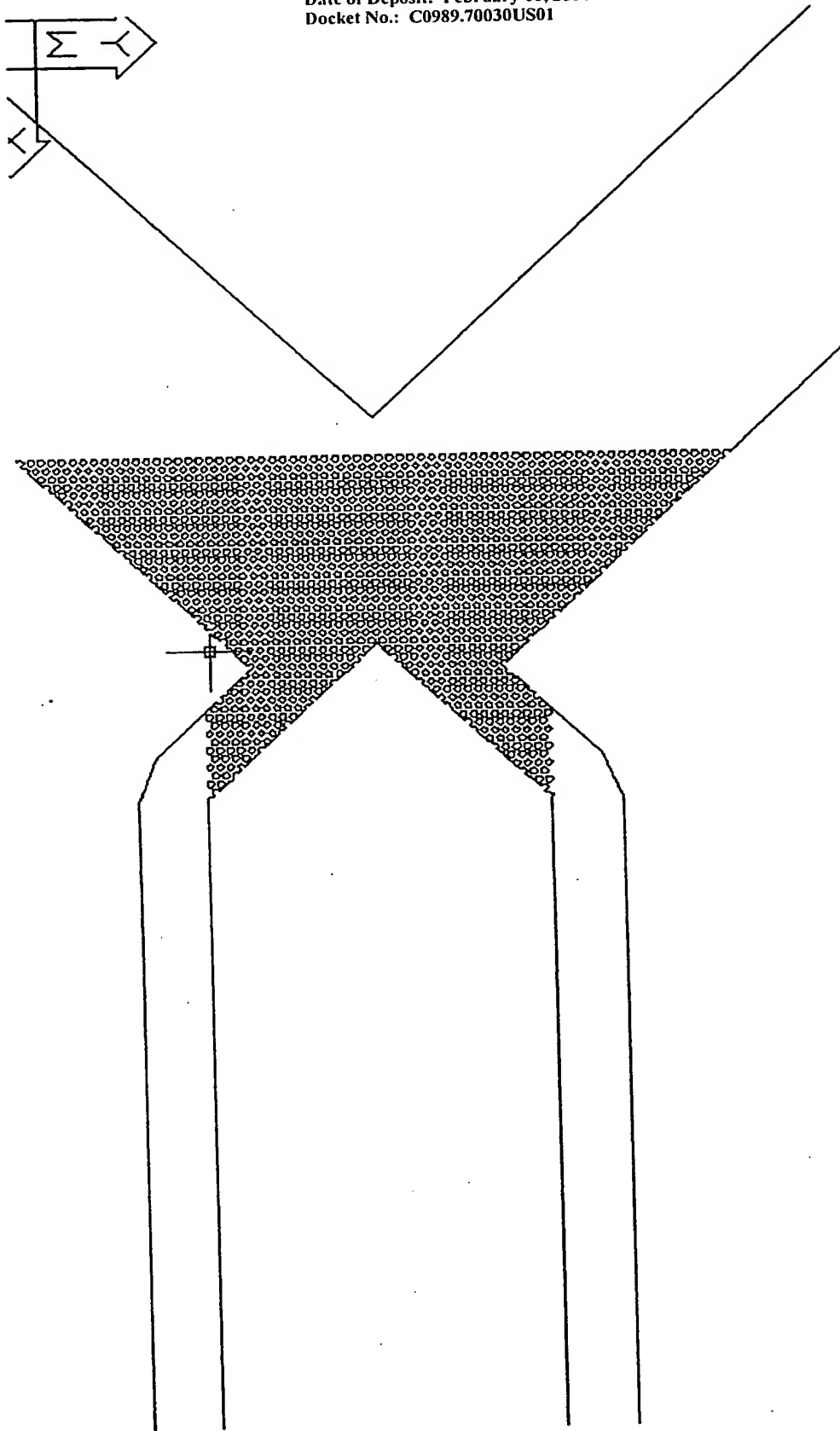


FIG. 2 (i)

10066-018

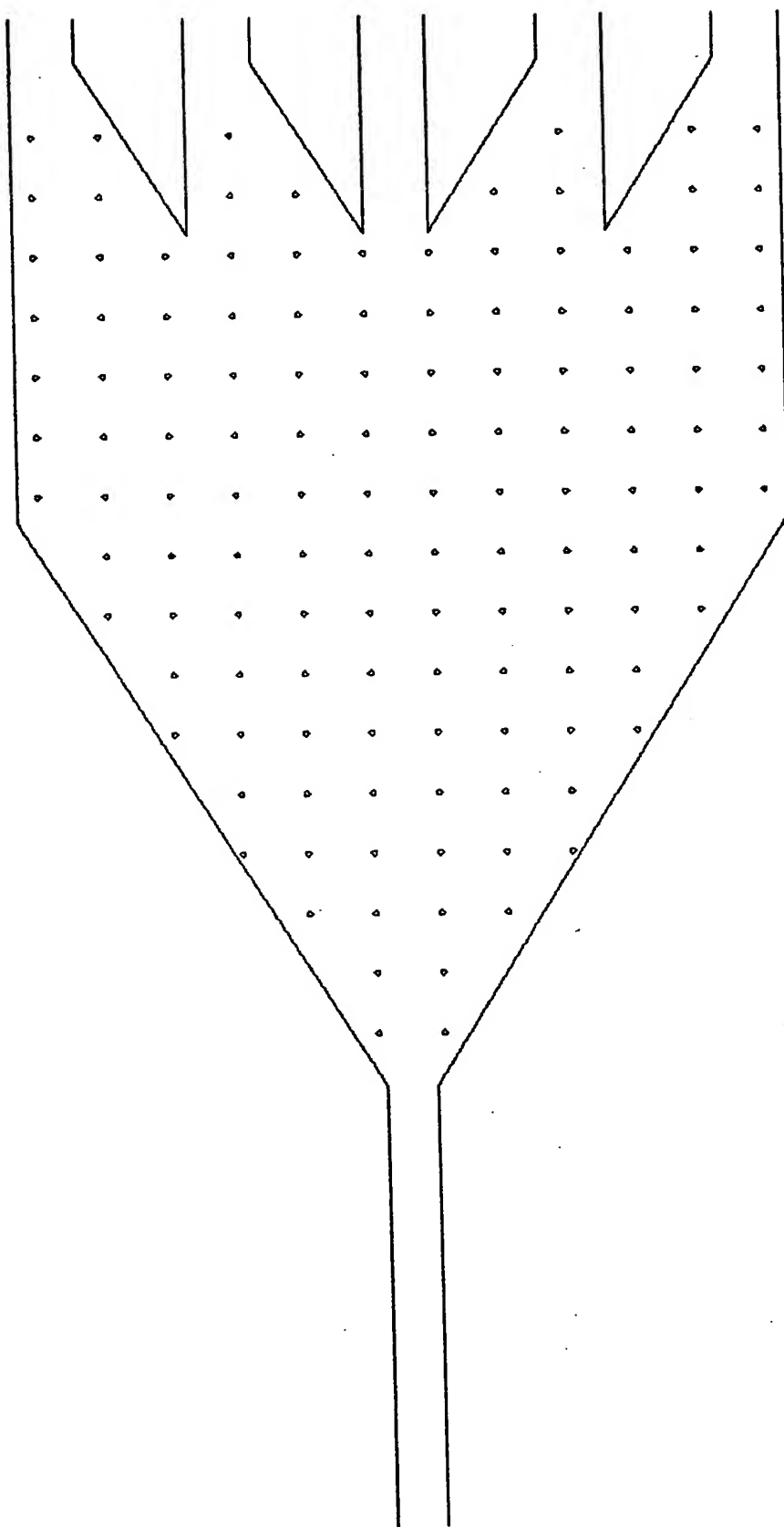


FIG. 2 (j)

10066-018

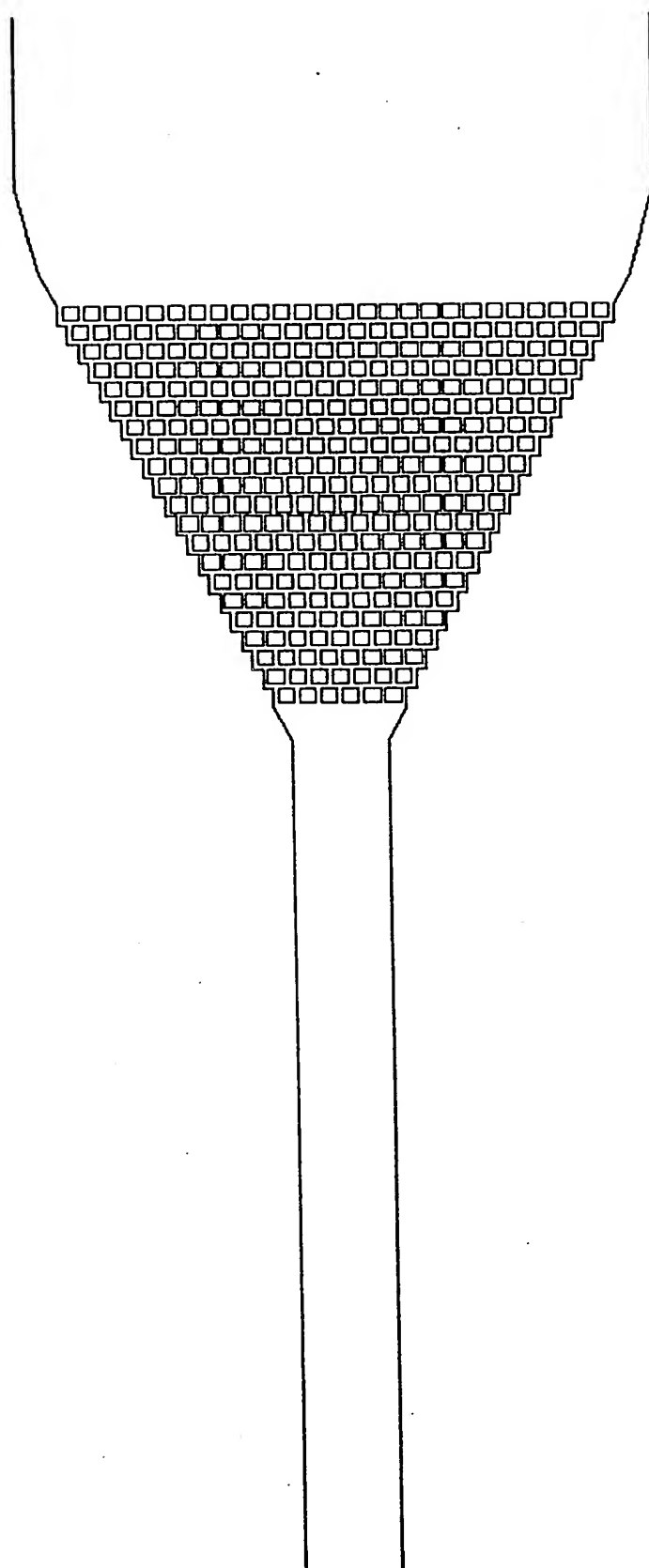


FIG. 2 (k)

10066-018

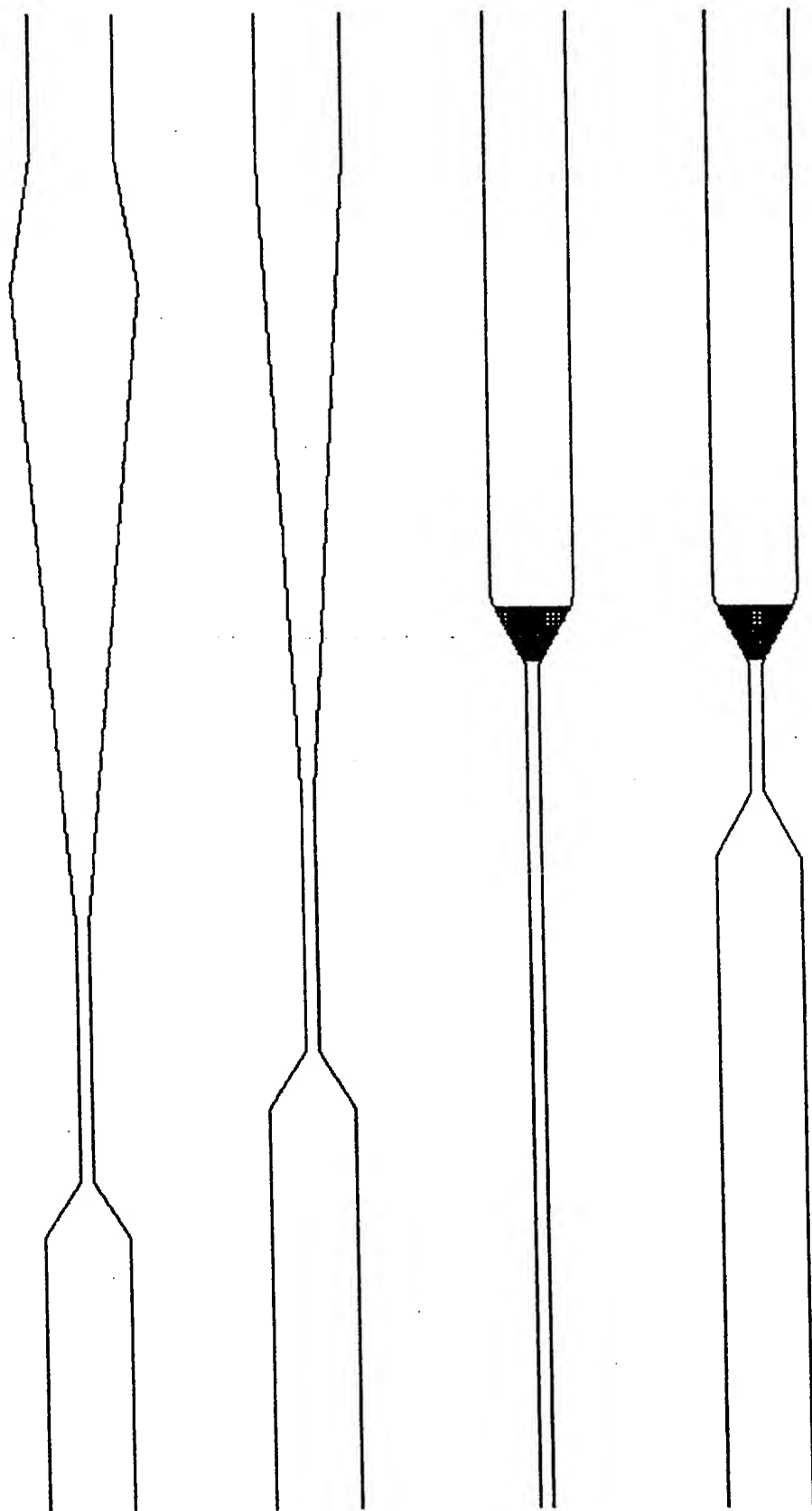


FIG. 2 (I)

10066-018

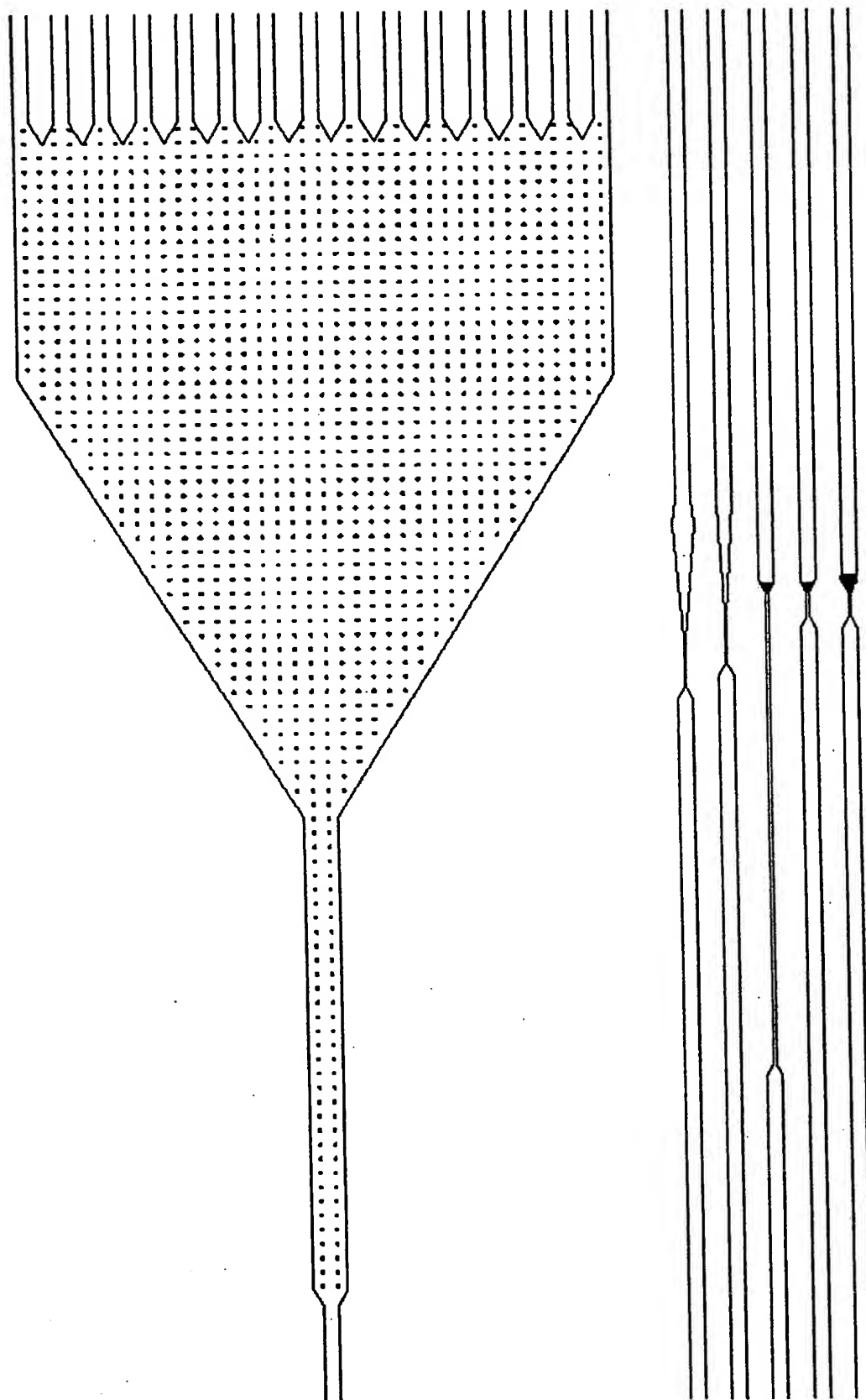


FIG. 2 (m)

10066-018

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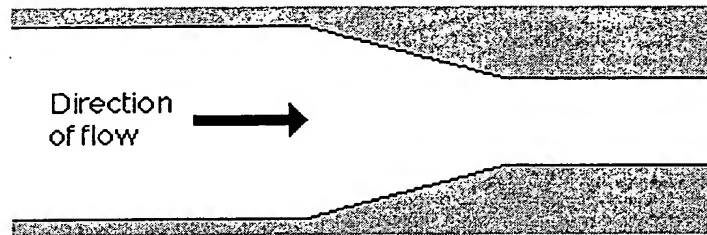


FIG. 3

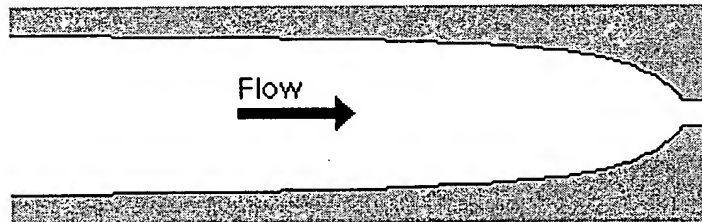


FIG. 4

10066-018

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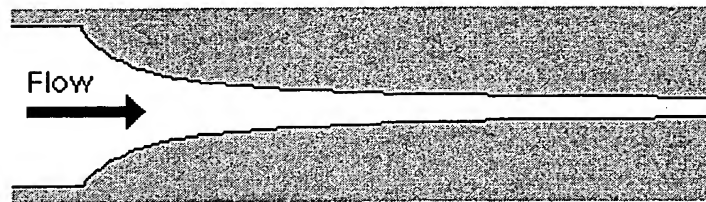


FIG. 5

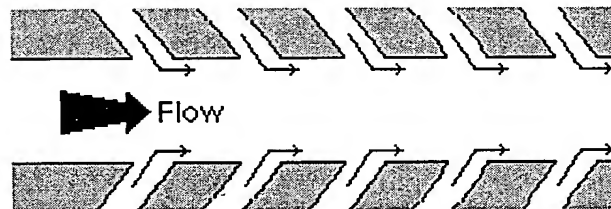


FIG. 6

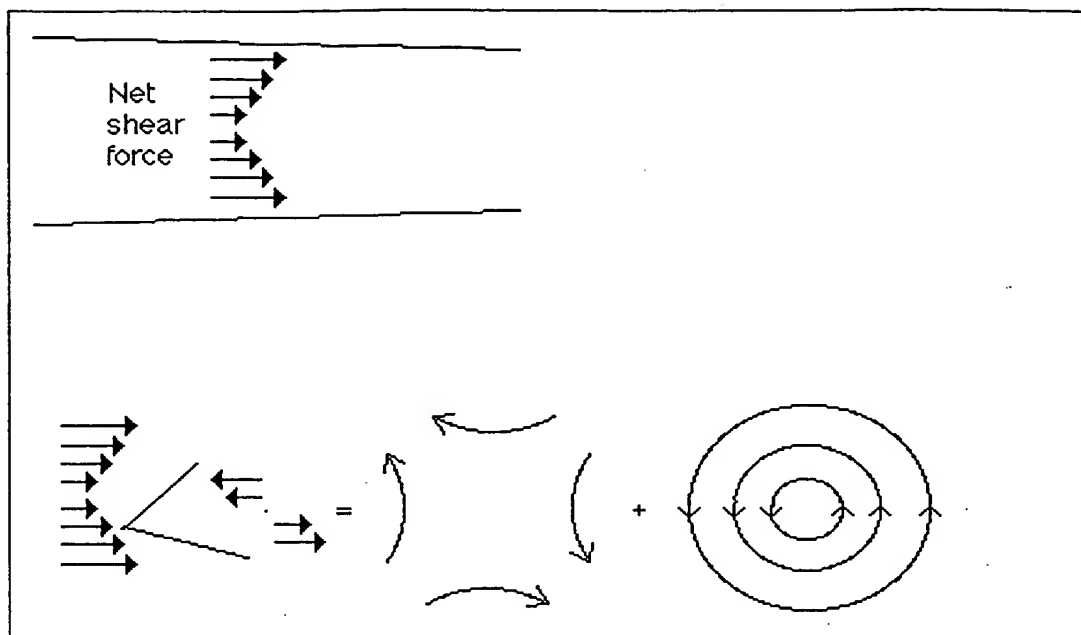


FIG. 7(a)

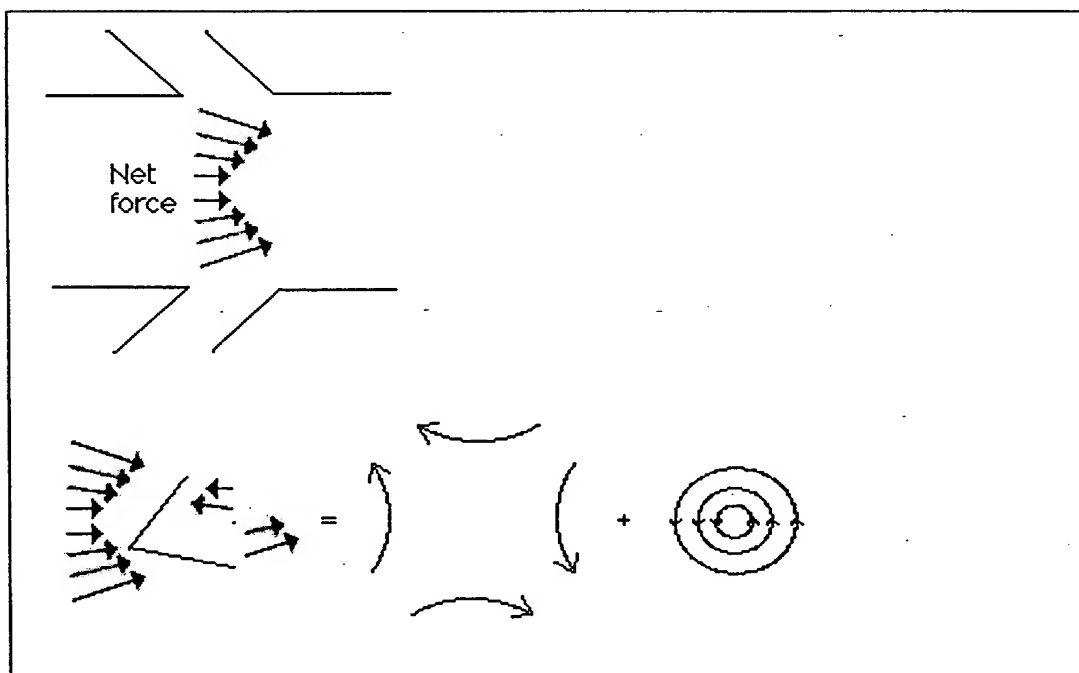


FIG. 7(b)

10066-018

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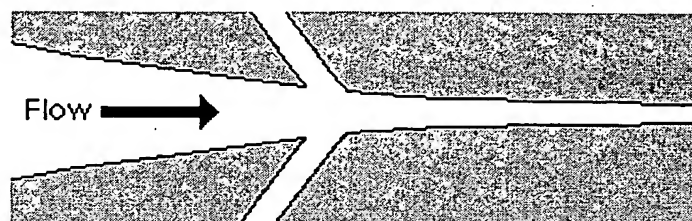


FIG. 8

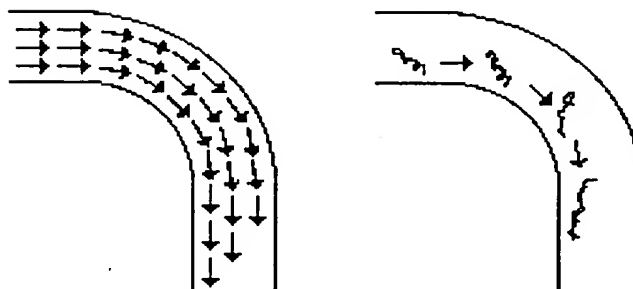


FIG. 9(a)

FIG. 9(b)

10066-018

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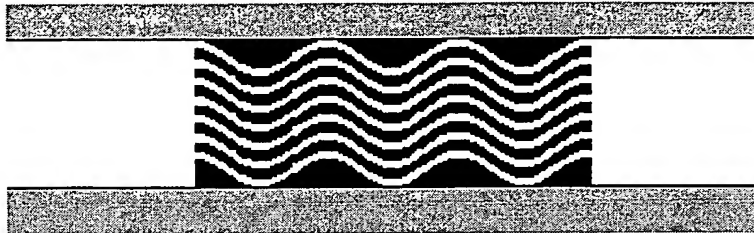


FIG. 10

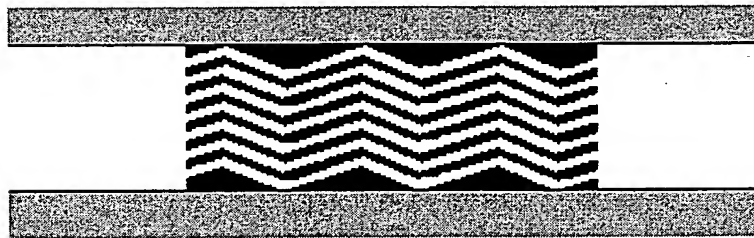


FIG. 11

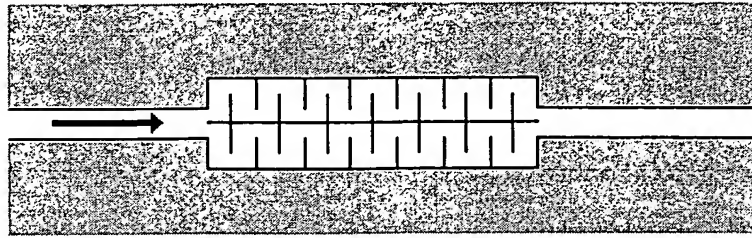


FIG. 12

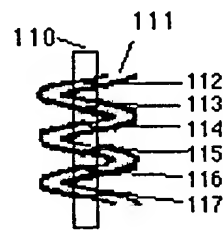


FIG. 13

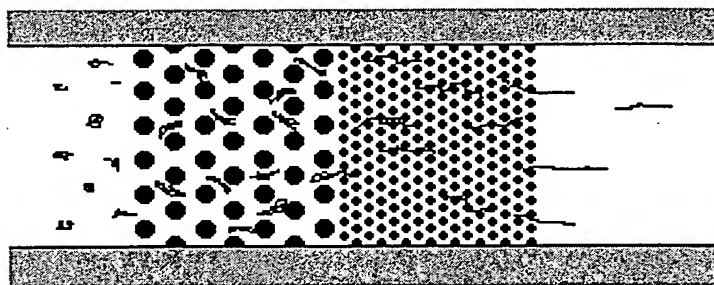
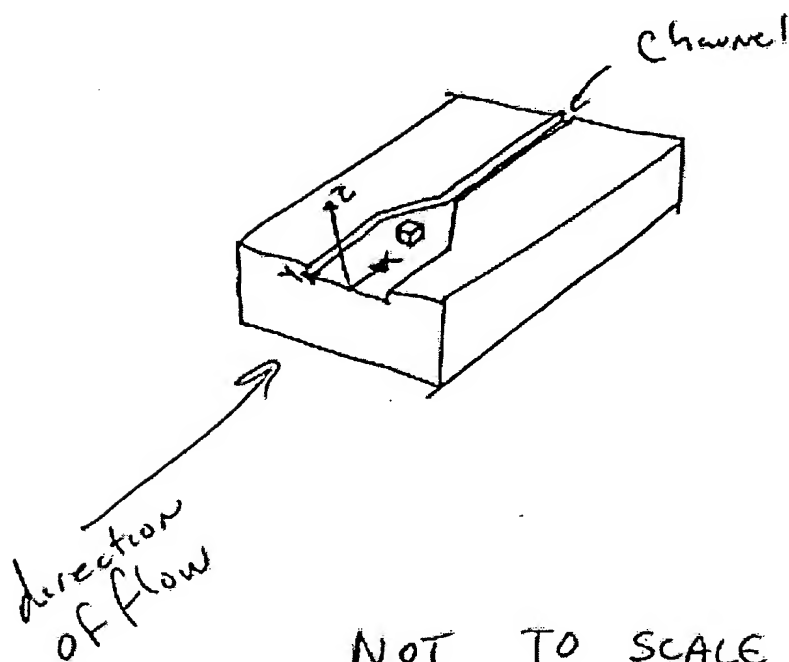


FIG. 14



NOT TO SCALE
SHOWN WITHOUT COVER SLIP

FIG. 15

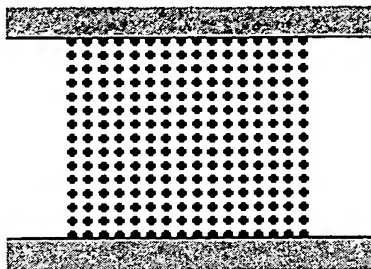


FIG. 16(a)

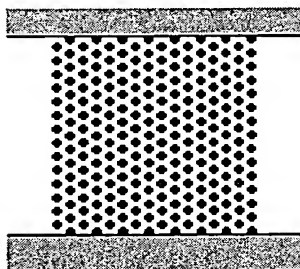


FIG. 16(b)

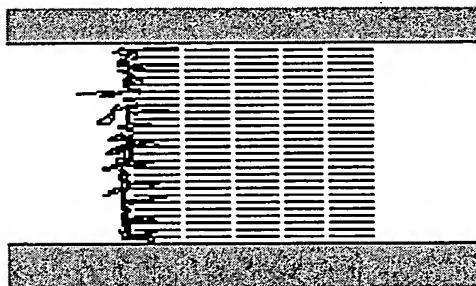


FIG. 17

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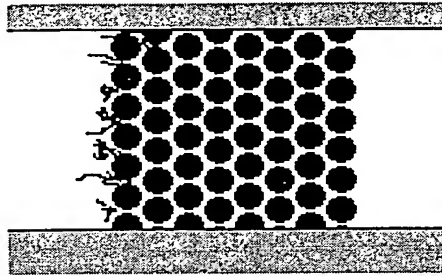


FIG. 18

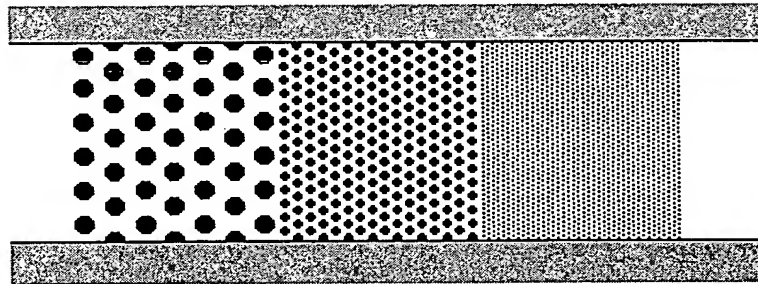


FIG. 19

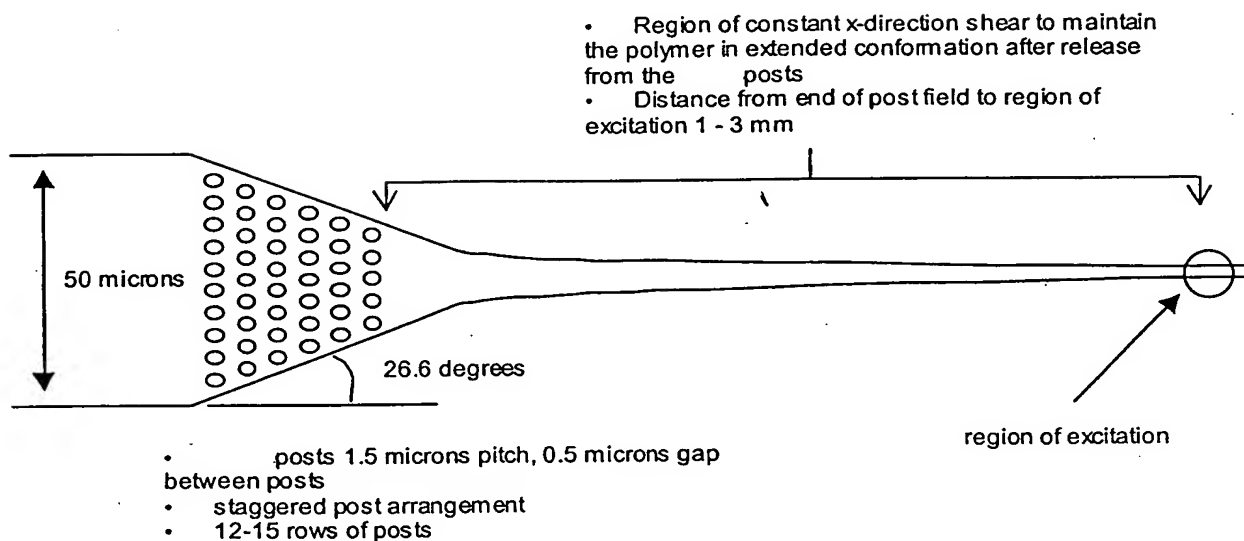
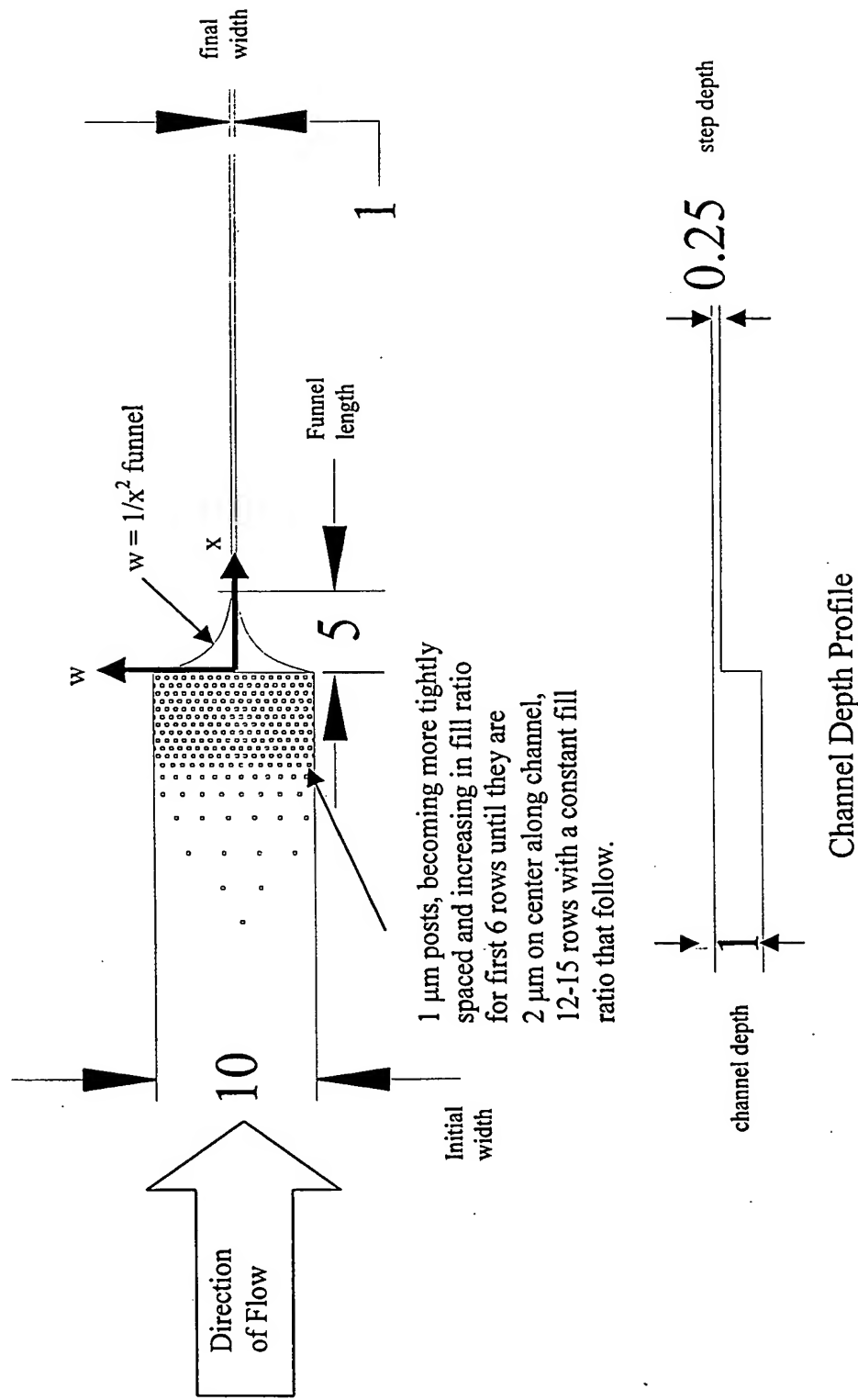


FIG. 20

Preferred Dimensions:

- Initial width / final width > 10
- Funnel length < 0.5*initial width
- Funnel faster than 1/x
- Step depth / channel depth <= 1/4



1 μ m posts, becoming more tightly spaced and increasing in fill ratio for first 6 rows until they are 2 μ m on center along channel, 12-15 rows with a constant fill ratio that follow.

Not To Scale, All Dimensions In

FIG. 21

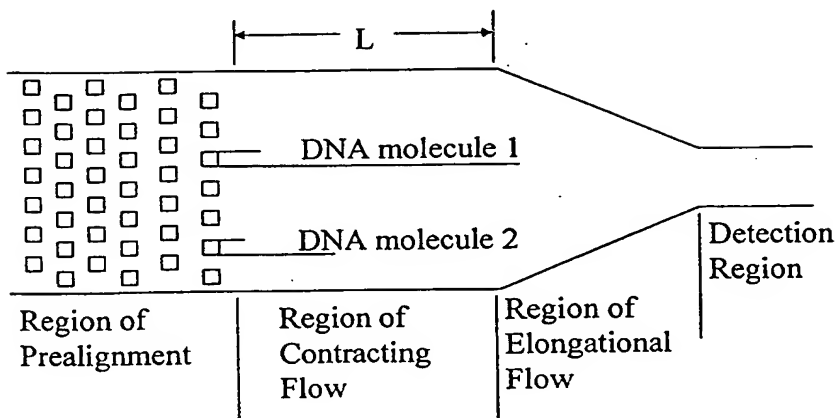


FIG. 22

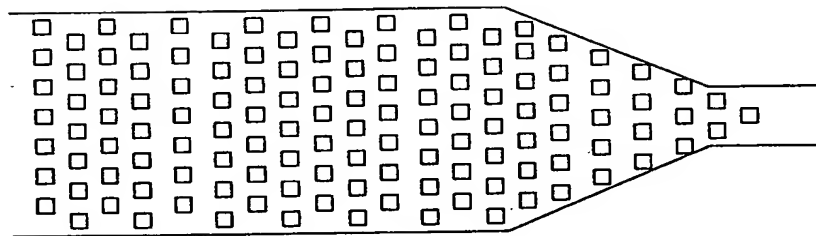


FIG. 23

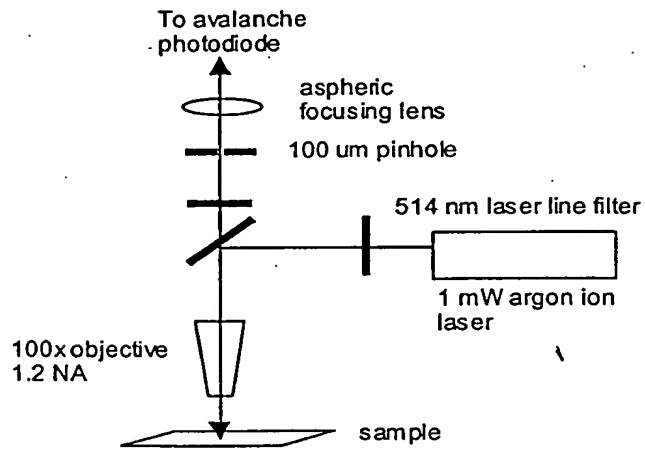


FIG. 24

10066-018

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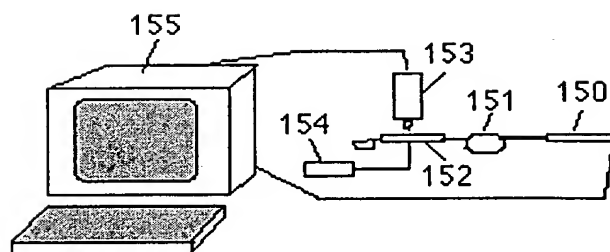


FIG. 25

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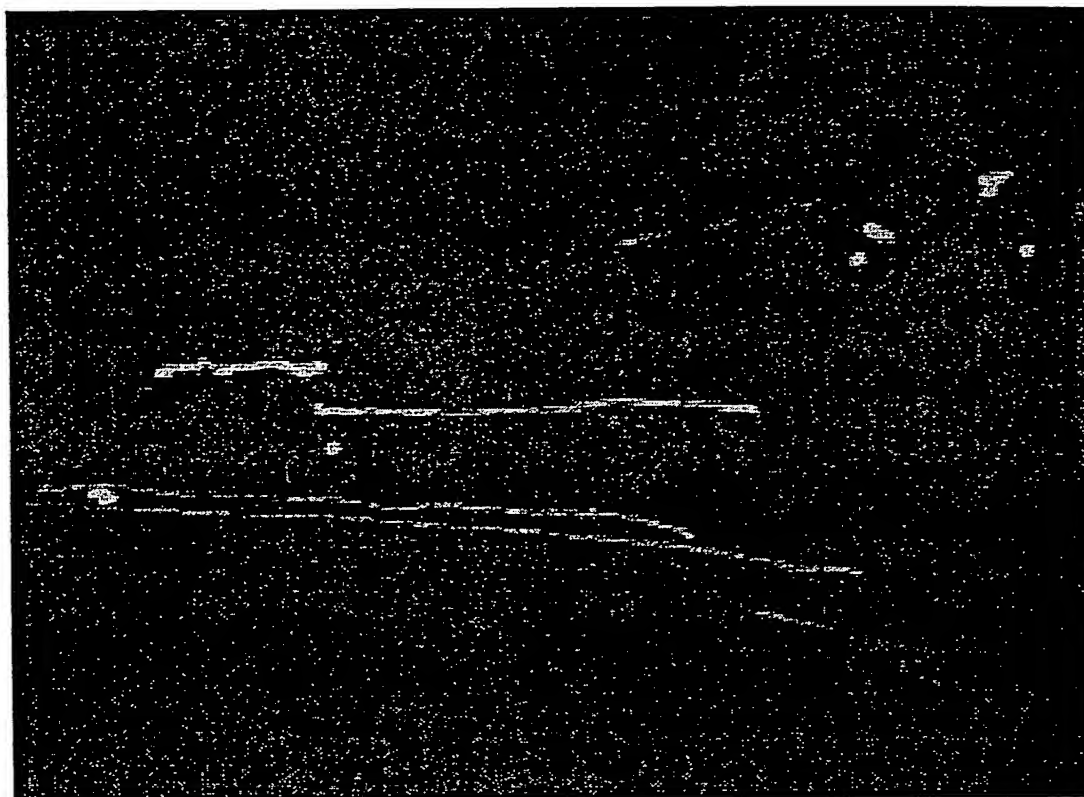


FIG. 26

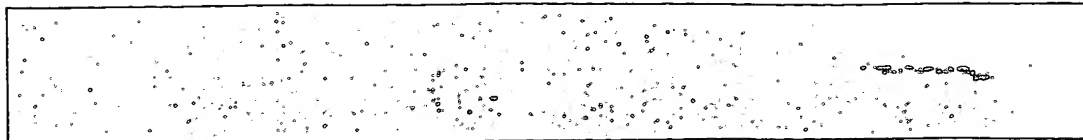


FIG. 27(a)

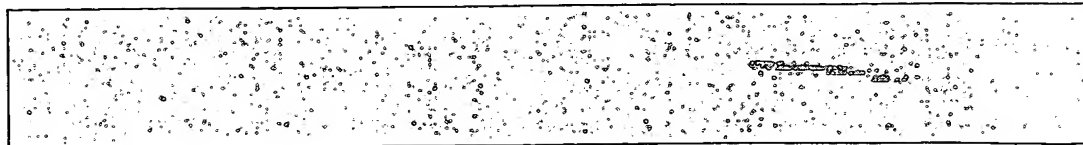


FIG. 27(b)

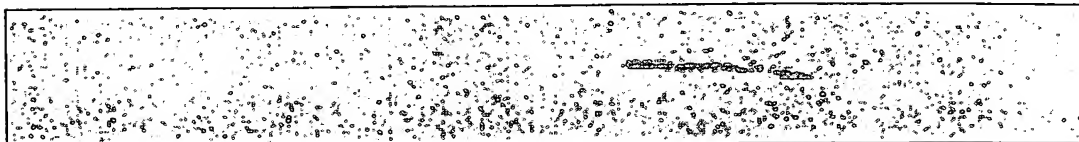


FIG. 27(c)

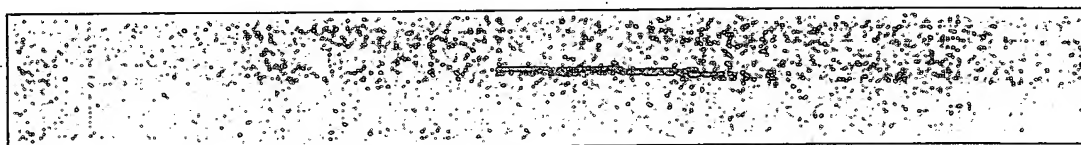


FIG. 27(d)

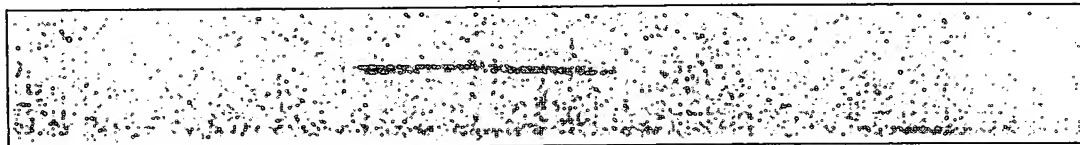


FIG. 27(e)



FIG. 27(f)

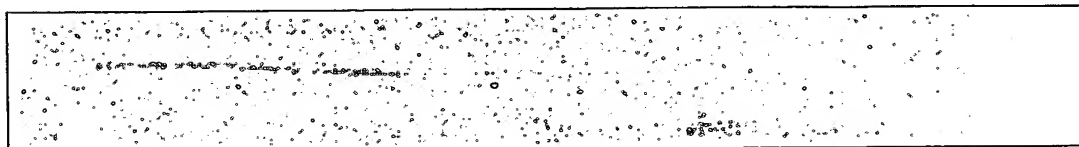


FIG. 27(g)

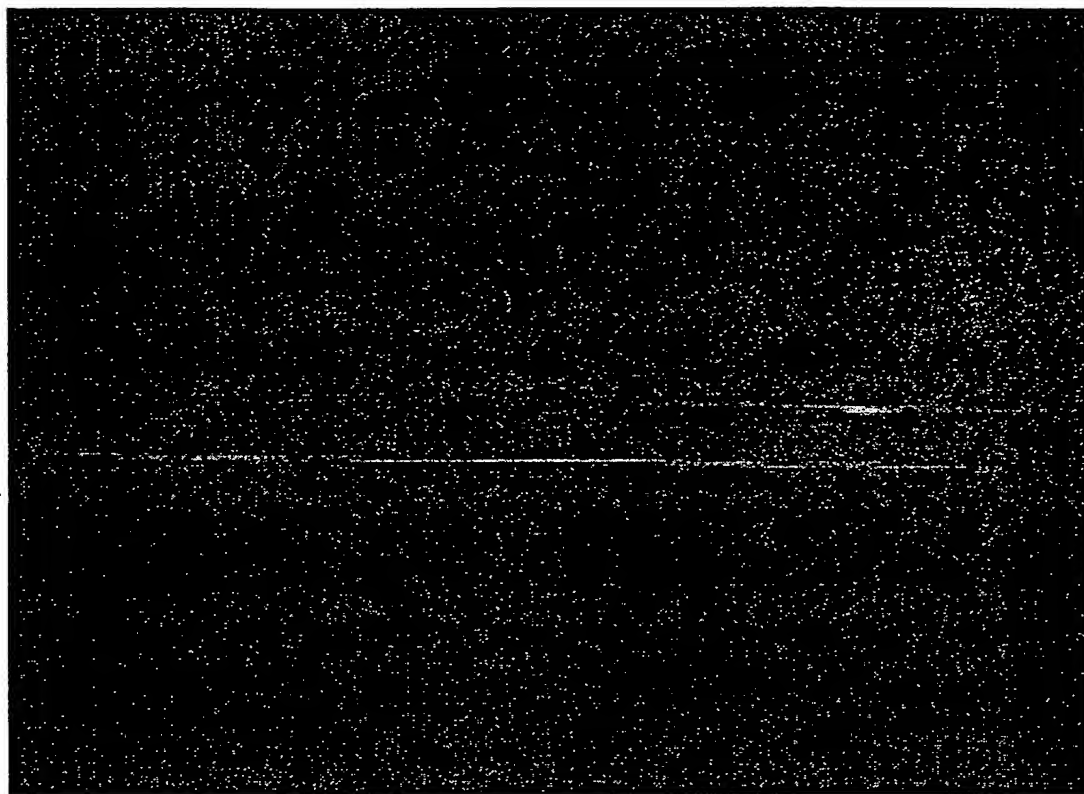


FIG. 28

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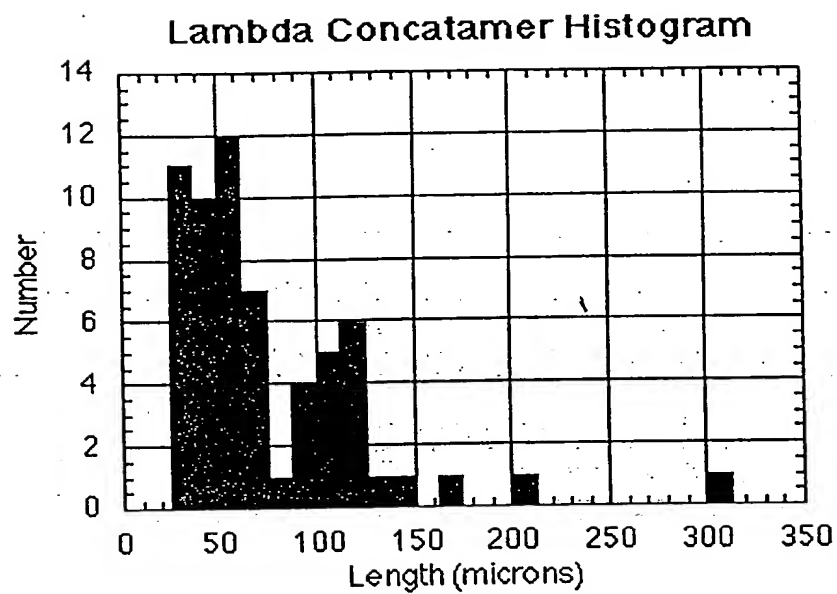


FIG. 29

10066-018

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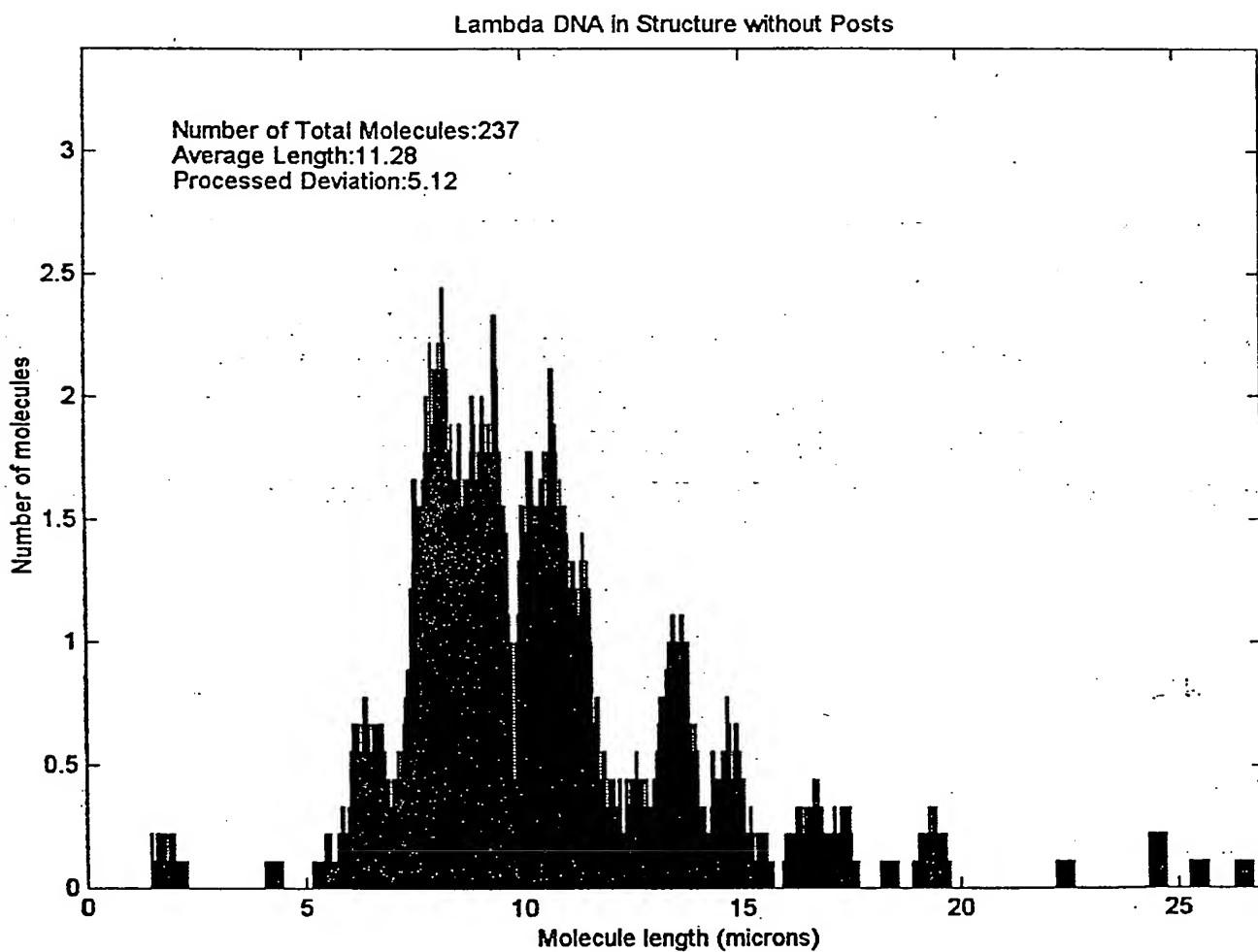


FIG. 30 (a)

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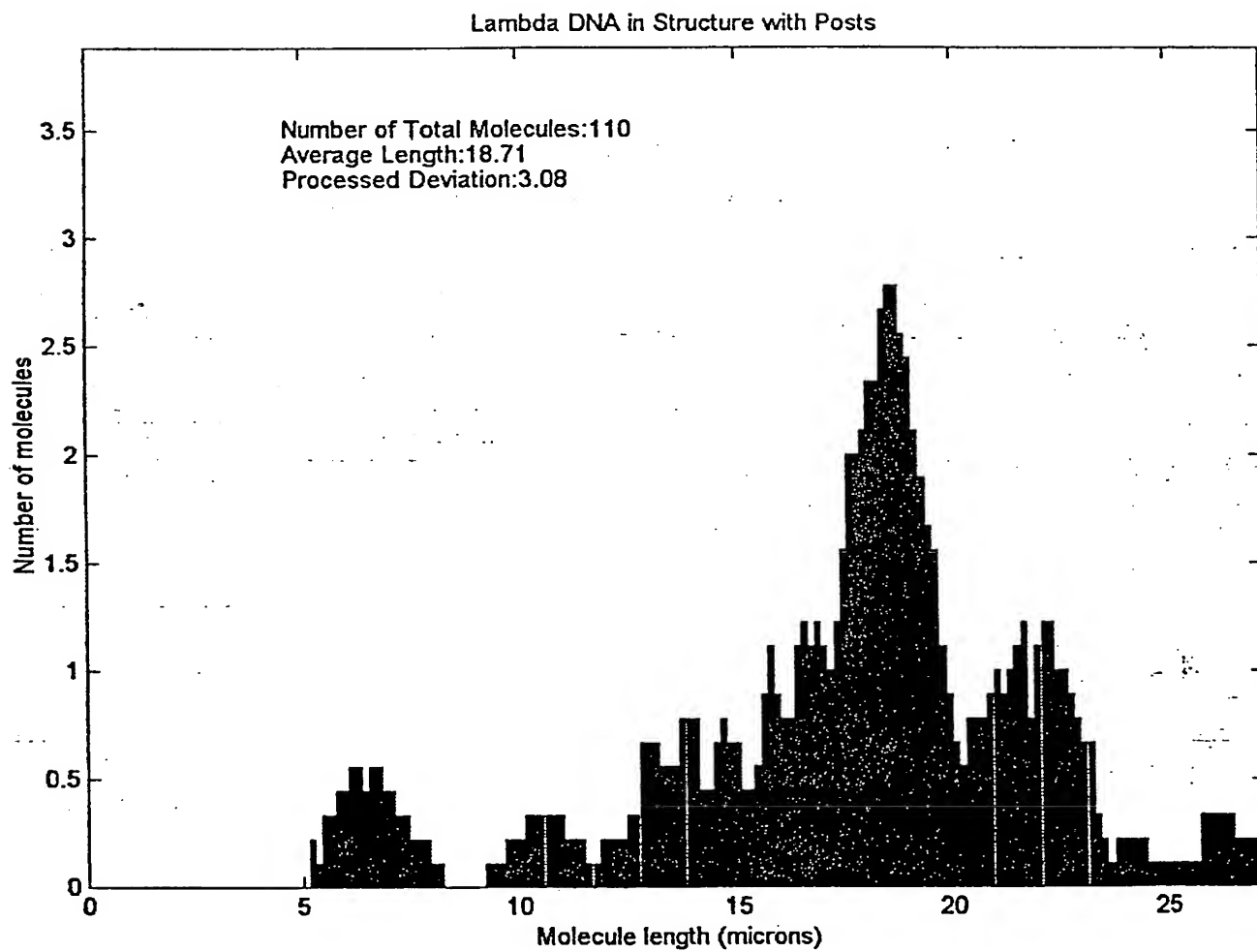


FIG. 30 (b)